



The Retrospective Study on Network Spinal Analysis

Benefits of Network Care

A retrospective study of 2,818 patients receiving Network care in the United States and around the world, demonstrated that Network care is associated with profound and statistically significant improvement in self-reported wellness areas.

<p><u>Physical Well Being</u> <i>Patients report:</i></p> <ul style="list-style-type: none"> • reduced pain • improved spinal flexibility • more energy less fatigue • fewer cold and flu symptoms • fewer headaches 	<p><u>Stress</u> <i>Patients report improvement in their:</i></p> <ul style="list-style-type: none"> • overall health and general well-being • ability to cope with daily problems <ul style="list-style-type: none"> • family relationships • significant relationships <ul style="list-style-type: none"> • work
<p><u>Lifestyle Changes</u> <i>Patients report increases in:</i></p> <ul style="list-style-type: none"> • regular exercise practice of Tai Chi/Yoga • meditation and prayer relaxation and self-hypnosis • consuming health food and vitamins • eating partial or total vegetarian diet • decreased need for prescription medications 	<p><u>Life Enjoyment</u> <i>Patients experience:</i></p> <ul style="list-style-type: none"> • openness to guidance by inner feelings • increased relaxation and well-being • positive feelings about self interest in maintaining a healthy life-style • feeling of openness when relating to others • compassion for others
<p><u>Emotional and Psychological Well Being</u> <i>Patients experience:</i></p> <ul style="list-style-type: none"> • less distress about physical pain • more positive feelings about self • decreased moodiness • improved temper • fewer angry outbursts • less depression and more interest in life • fewer concerns about “small” things • improved ability to concentrate • less anxiety 	<p><u>Overall Quality of Life</u> <i>Patients experience improvement in:</i></p> <ul style="list-style-type: none"> • personal life self-awareness • ability to adapt to change • handling problems in life • accomplishments in life • life as a whole • overall contentment with life • relationship with significant other • job satisfaction • life being as it was thought to be • romantic life • actual work done • relationship with co-workers • physical appearance



Wellness was evaluated through the patient's own experience of changes in the following categories: Improved Physical State, Improved Mental/Emotional State, and Improved Response to Stress, Improved Life Enjoyment, and Improved Overall Quality of life. Not only did Seventy-six percent of the patients studied report improved combined wellness changes in all categories assessed, but the longer the individuals were in care, the greater the level of improvement. After over 3 years of care, no limit or ceiling was found to the benefits. This is remarkable.

Findings from the retrospective study showed that all measured characteristics of care exerted a pronounced impact on perceived improvements in wellness. Individuals who had experienced significant "life stress (change in job, etc.)" and trauma were more likely to report perceived improvements in wellness than those with less stress or trauma.

Statistical analysis using multivariate regression has allowed the development of a "model" to analyze the influence of a number of factors on a given outcome. The influence of the variables on the outcome portion of the overall model is referred to as the R². If only the variables considered account for all of the variance around a predicted outcome the R² would be equal to 100%. Relative to the retrospective study, a number of factors were tested to find out the extent to which they influenced the outcome variable "wellness." When a patient reports a perceived change in their health a number of factors could be contributing to that change. A regression model tests what influence personality factors, social status factors, and other social conditions may have on a person's perceived wellness. Through this process, it is possible to construct an overall model which shows what impact the actual care had on respondent's perceived wellness independent of other demographic characteristics such as age, gender, income, lifestyle, and amount of stress due to change in life activities.

Following this logic, the retrospective study showed that socio-demographic factors such as age, gender, education, and income contributed very little to explaining the large change in "wellness" experienced by respondents under Network Care. However, the indicators of potentially "stressful" life circumstances such as change in marital status, job, residence, etc., or experiences of past trauma collectively explained 16% of the variance in improved "wellness." This is interpreted to mean that patients reporting a significant change in life circumstances and past traumatic experiences report a greater perceived improvement in wellness. This further suggests that those who "needed" stress buffering the most (holding all other variables constant) had the highest perceived benefit from Network Care. Interestingly, when duration of care, awareness of the wave, awareness of change in breathing, and whether or not respondent's expectations were met, were added to this regression model, explained variance rose from 16% to 24%, a 50% increase. This suggests that even when holding other variables such as external social factors and interpersonal factors constant, Network Care had an additional effect on the respondent's perceived improvement in health and wellness.

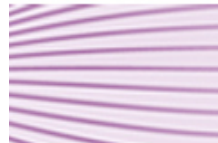
To understand the effect of lifestyle behaviors on present wellness, another regression model was constructed. This model showed that higher present wellness was predicted, (explaining 3% of the variance) by being younger, having a job, and being married. Moreover, when other variables such as having no ailments, reporting a higher emotional state score, and higher perceived prior wellness, the explained variability rose to 36%. When adding Network Care Characteristics such as, time under care, awareness of the wave, awareness of breathing, and expectations met, the explained variance rose to 38%.





Patients were also asked about health promoting changes in lifestyle practices such as exercise, relaxation, meditation, yoga, diet, vitamins, vegetarianism; and health risking lifestyles such as smoking, beef and caffeine consumption. However, when change in lifestyle was included in a regression model predicting a perceived improvement in wellness (before care minus present wellness), it accounted for only 5% of the variance. Future analysis will likely explain the dynamic between lifestyle habits, the use of NSA, and perceived wellness. That is, does using NSA lead to a change in lifestyles, and if so, do these lifestyle changes, rather than NSA, account for the improvement reported by patients?

The Retrospective questionnaire is being utilized at the New Zealand Chiropractic Association School of Chiropractic, in Auckland. The Epstein model of spinal and neural integrity is part of the curricula at the school, as well as Network Spinal Analysis being taught as an elective at the school and practiced in their clinical program.



Dr. Stephanie Birdwell M.S., D.C.
Chiropractor
www.magnoliachiropracticcenter.com
Office: 415-931-5878
133 Magnolia Lane San Francisco, CA